

CLAIMS:

1. Device for recording information in blocks having logical addresses on a record carrier, which device comprises
- recording means (22) for recording marks in a track on the record carrier representing the information,
 - 5 - control means (20) for controlling the recording by locating each block at a physical address in the track, the control means comprising
 - addressing means (31) for translating the logical addresses into the physical addresses and vice versa in dependence of defect management information,
 - defect management means (32) for detecting defects and maintaining the defect
 - 10 management information in defect management areas on the record carrier, the defect management information at least including remapping information indicative for translating a logical address initially mapped to a physical address exhibiting a defect to an alternate physical address in a defect management area,
 - contiguous recording detection means (33) for detecting a series of blocks having a
 - 15 continuous logical address range to be recorded in a corresponding allocated physical address range,
 - offset means (34) for generating local offset information for, in the event of a defect interrupting the allocated physical address range, adding an offset to a local range of physical addresses in said address translation for skipping the defect and writing the blocks
 - 20 logically following the last block before the defect at physical addresses following the defect, and
 - end portion recording means (35) for accommodating recording an end portion of at least one block of the continuous logical address range, which end portion extends beyond the allocated physical address range due to the defect.
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2. Device as claimed in claim 1, wherein the end portion recording means (35) are for recording the end portion in a defect management area, in particular in a single defect management area.

3. Device as claimed in claim 1, wherein the end portion recording means (35) are for remapping a number of blocks following the allocated physical address range, the number corresponding to the number of blocks in the end portion, and for recording the end portion starting at the physical address following the allocated physical address range.

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4. Device as claimed in claim 1, wherein the end portion recording means (35) are for retrieving all previously recorded blocks in a physical address range from the physical address following the allocated physical address range up to a defect management area, for recording the end portion starting at the physical address following the allocated physical address range, and for recording said retrieved previously recorded blocks starting at the physical address following the recorded end portion.

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5. Device as claimed in claim 1, wherein the offset means (34) are for generating at least one offset entry, the offset entry indicating a logical 'from' address and an offset to be added to a physical address for logical addresses equal to or above the logical 'from' address, in particular up to a next logical 'from' address in a next offset entry.

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6. Device as claimed in claim 1, wherein the offset means (34) are for generating an entry in the remapping information for a logical address that has been reassigned to a different physical address by the end portion recording means.

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7. Device as claimed in claim 1, wherein the end portion recording means (35) are for detecting a free location on the record carrier, for recording the end portion in the free location, and for remapping original logical addresses assigned to the free location, in particular remapping an original logical address to the physical address of the defect interrupting the allocated physical address range.

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8. Device as claimed in claim 1, wherein the end portion recording means (35) are for detecting a free location on the record carrier, for recording the end portion in the free location, and for updating file system information indicating the logical addresses of the series of blocks as part of a file.

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9. Device as claimed in claim 1, wherein the end portion recording means (35) are for detecting a free location on the record carrier,

for retrieving previously recorded blocks in a physical address range following the allocated physical address range,

for recording the end portion in the physical address range following the allocated physical address range,

- 5 for recording said retrieved previously recorded blocks in the free location, and for updating file system information indicating the logical addresses of said retrieved previously recorded blocks as part of a file.

10. Device as claimed in claim 1, wherein the contiguous recording detection
10 means (33) are for detecting a continuous recordings indicator in a recording command, or for detecting the series of blocks representing real-time information, in particular video information.

11. Device for reading information in blocks having logical addresses on a record
15 carrier, which device comprises
- reading means (30) for reading marks in a track on the record carrier representing the information,
 - control means (20) for controlling the reading by locating each block at a physical address in the track, the control means comprising
 - 20 - addressing means (31) for translating the physical addresses into the logical addresses and vice versa in dependence of defect management information, the defect management information at least including remapping information indicative for translating a logical address initially mapped to a physical address exhibiting a defect to an alternate physical address in a defect management area, and
 - 25 - offset means (34) for recovering local offset information for adding an offset to a local range of physical addresses in said address translation for skipping a defect.

12. Method of recording of information in blocks having logical addresses located
at a physical address in a track on a record carrier,
- 30 - the logical addresses corresponding to physical addresses in dependence of defect management information,
- the logical addresses constituting a contiguous storage space,
 - defects being detected and the defect management information being maintained in defect management areas on the record carrier, and

- the defect management information at least including remapping information indicative for translating a logical address initially mapped to a physical address exhibiting a defect to an alternate physical address in a defect management area,
the method comprising
- 5 - detecting continuous recording of a series of blocks having a continuous logical address range to be recorded in a corresponding allocated physical address range,
- generating local offset information for, in the event of a defect interrupting the allocated physical address range, adding an offset to a local range of physical addresses in said address translation for skipping the defect and writing the blocks logically following the last block
- 10 before the defect at physical addresses following the defect, and
- accommodating recording an end portion of at least one block of the continuous logical address range, which end portion extends beyond the allocated physical address range due to the defect.
- 15 13. Computer program product for recording of information, which program is operative to cause a processor to perform the method as claimed in claim 12.